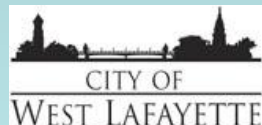


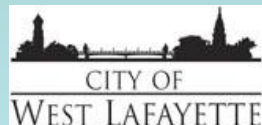
US 52 Corridor Study Public Meeting

November 15, 2010



Agenda

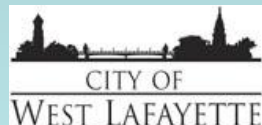
- View Maps and exhibits (15 min)
- PowerPoint Presentation (35 min)
 - Project Background
 - Existing and Forecast Corridor Conditions
 - Problem Identification
 - Improvement Options
- Questions
- View maps, ask questions, provide comments



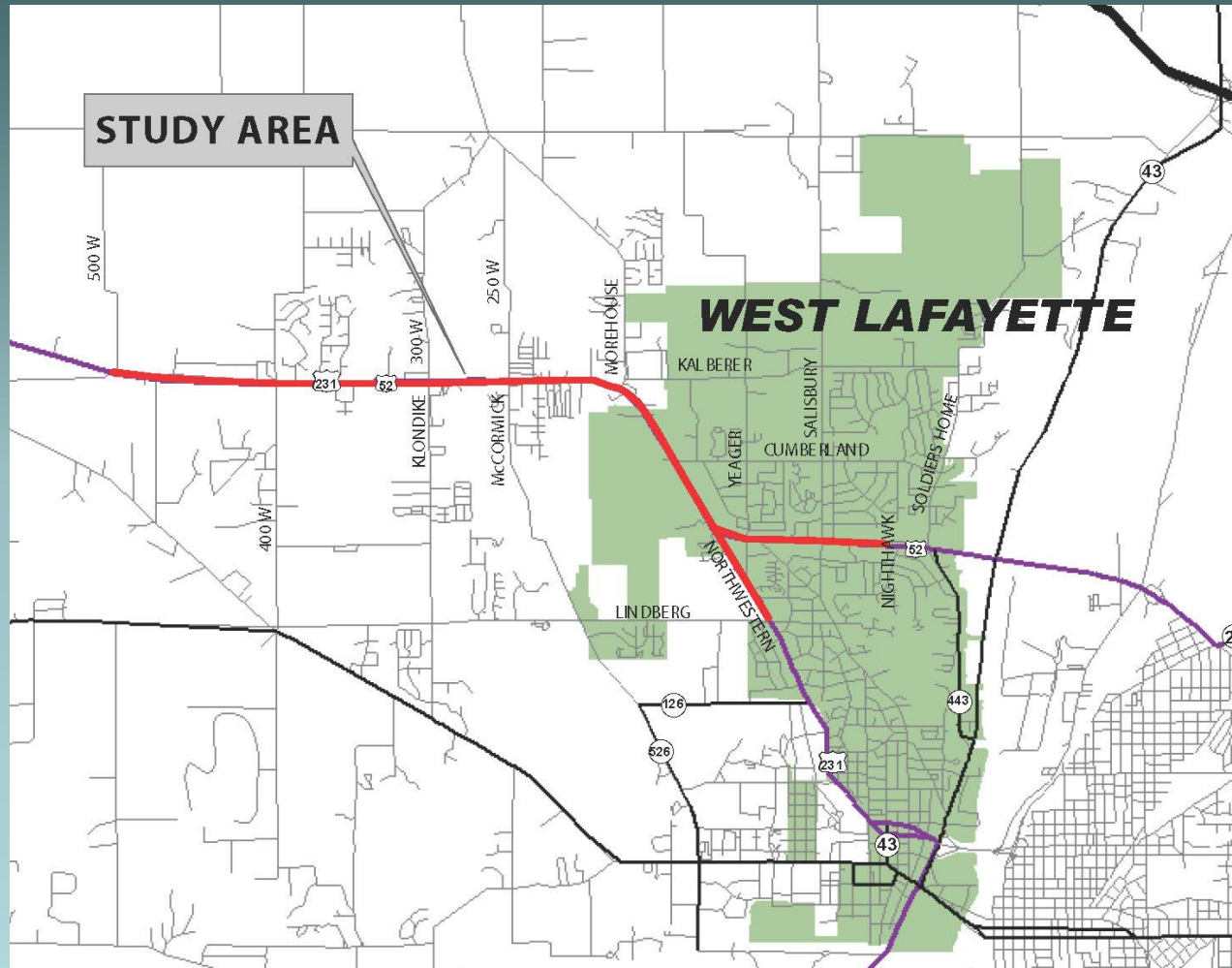
Study Sponsors

- Tippecanoe County
- City of West Lafayette
- Area Plan Commission of Tippecanoe County
- Indiana Department of Transportation

Study Consultant – HNTB

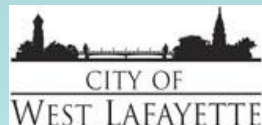


Study Area



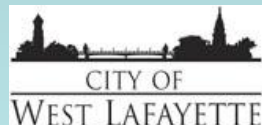
Study Purpose

- Identify existing problems
- Forecast future problems
- Recommend improvements
- Look for opportunities

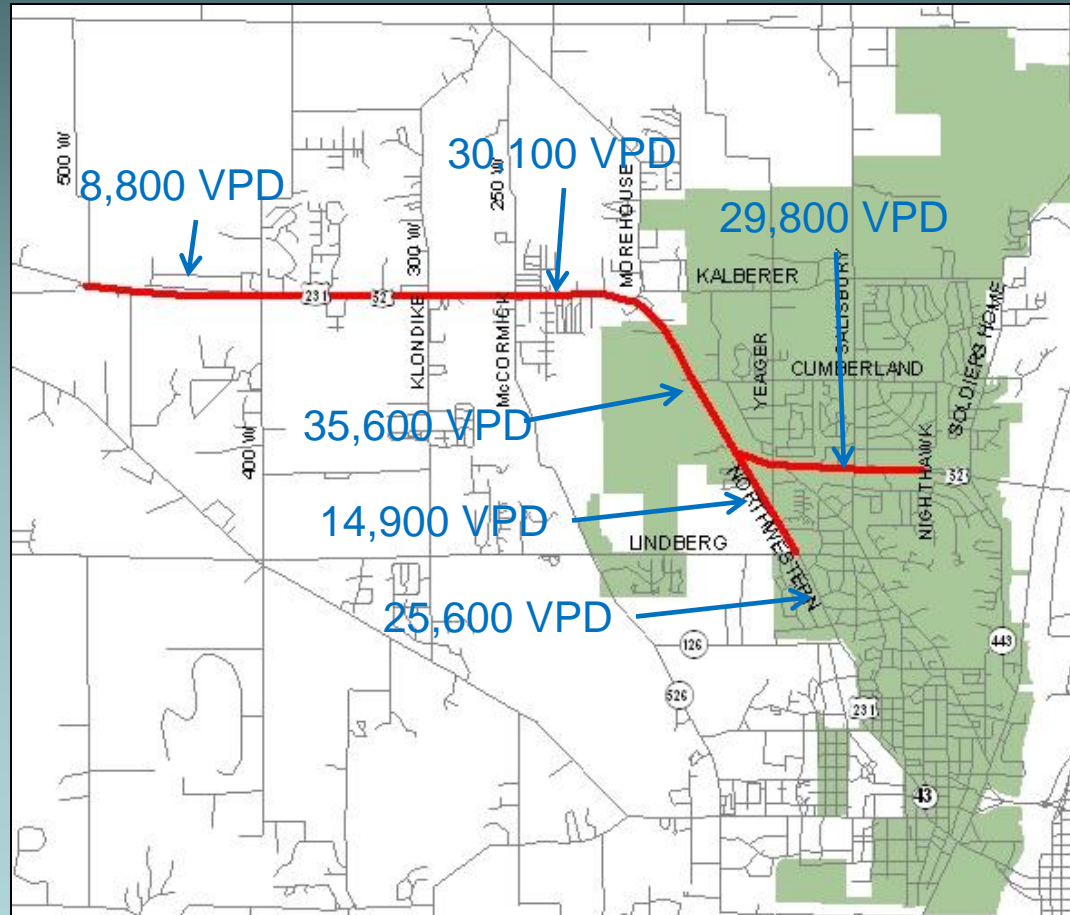


Study Approach

- Existing conditions → short term improvements (5 to 10 year time frame)
- 2030 Forecast travel demand → long term improvements



Recent Traffic Volumes



Most significant volume increases since 1999:

- US 52 from Klondike Rd to Morehouse Rd
- US 52 from Northwestern Ave to Salisbury St
- Northwestern Avenue from Yeager to US 52

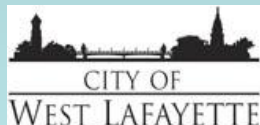
Multimodal Accommodation

Transit Operations

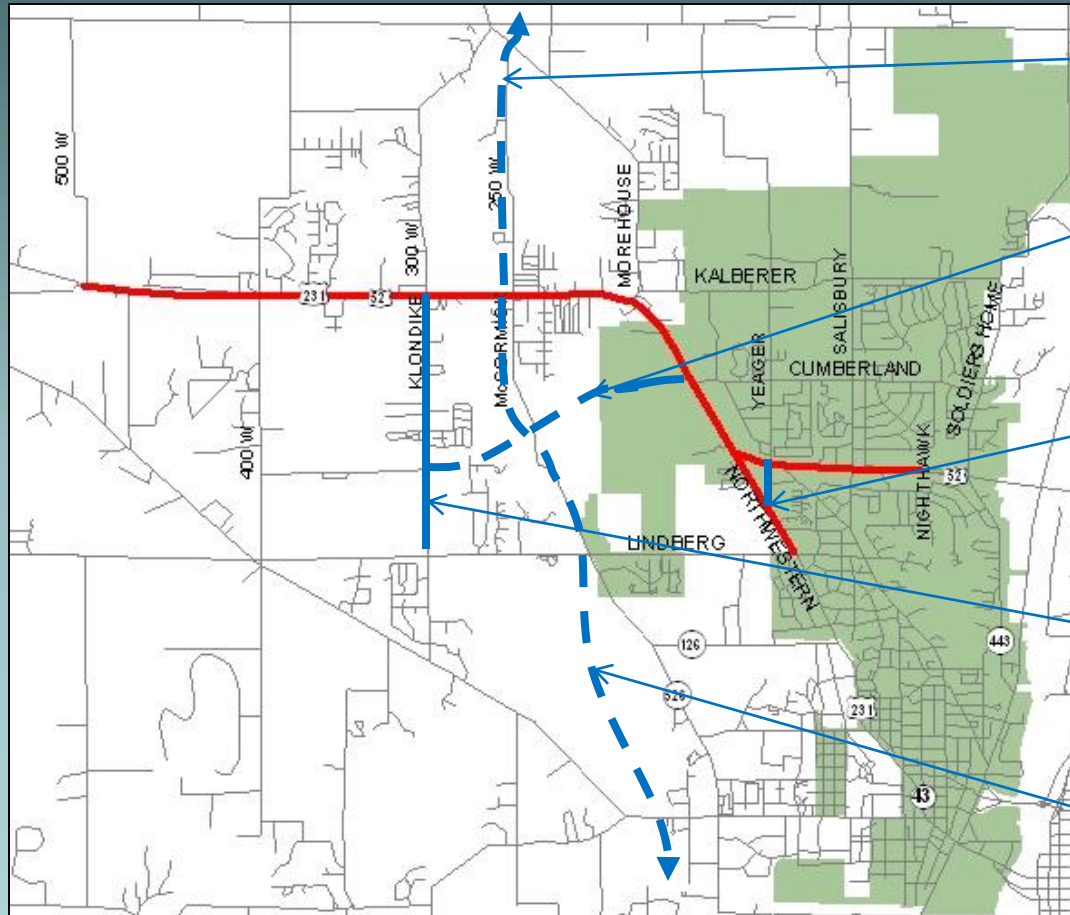
- CityBus operates 4 regular routes and 3 express routes in the corridor
- No service expansions are currently planned

Bicycle/Pedestrian Facilities

- Good existing/planned network in area, but little accommodation directly along US 52/US 231



Key Corridor Road Projects



Extend new US 231 to I-65 (long term plan)

Extend Cumberland (2012)

Widen Yeager / roundabout at Northwestern (2011)

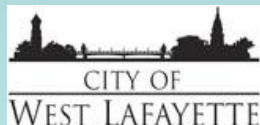
Widen Klondike (2014)

New US 231 (2011)

Existing and Forecast Conditions

Future Travel Demand

- Land use study conducted by the APC
- Daily traffic forecasts prepared by the APC
- Travel growth, together with existing traffic counts, used to estimate 2015 and 2030 peak hour traffic volumes for analysis



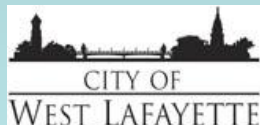
Problem Identification

- Safety
- Traffic congestion
- Pavement condition and drainage
- Pedestrian and bicycle accommodation
- Transit access

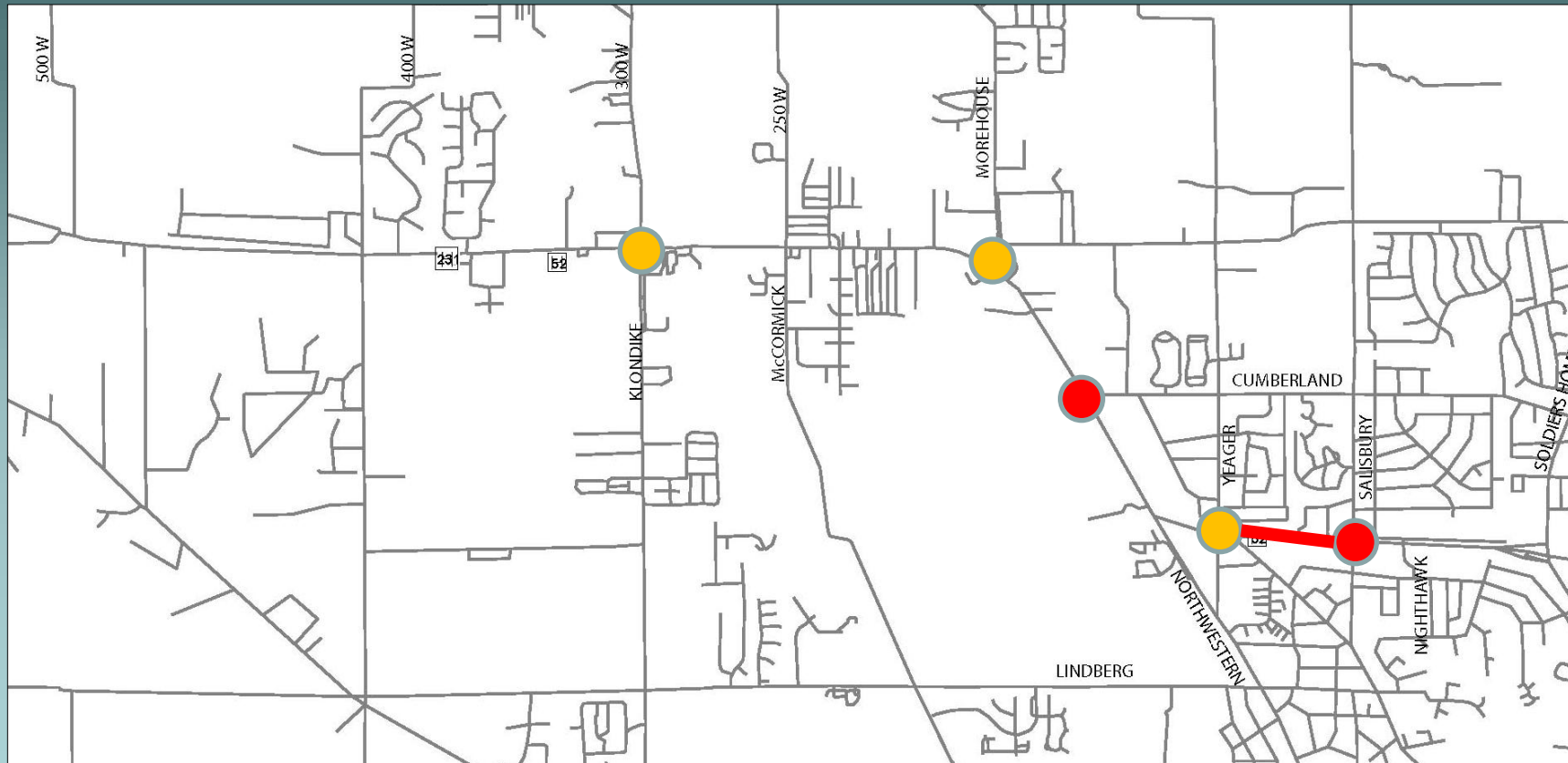
Method and details available at

www.tippecanoe.in.gov

Search for “US 52 West Corridor Study”



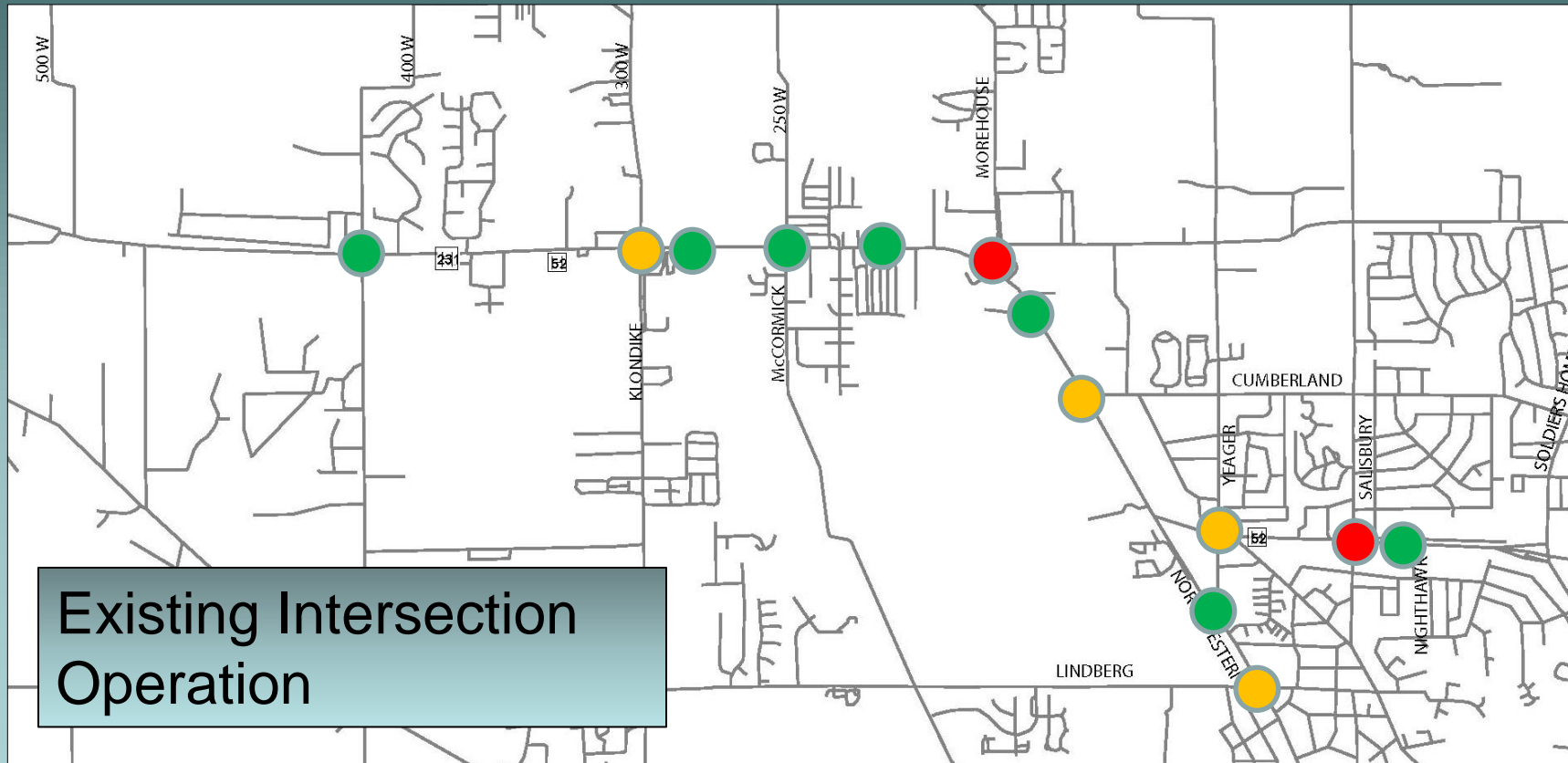
Roadway Crashes



● = Crash problem

● = Potential crash problem

Roadway Traffic Operation

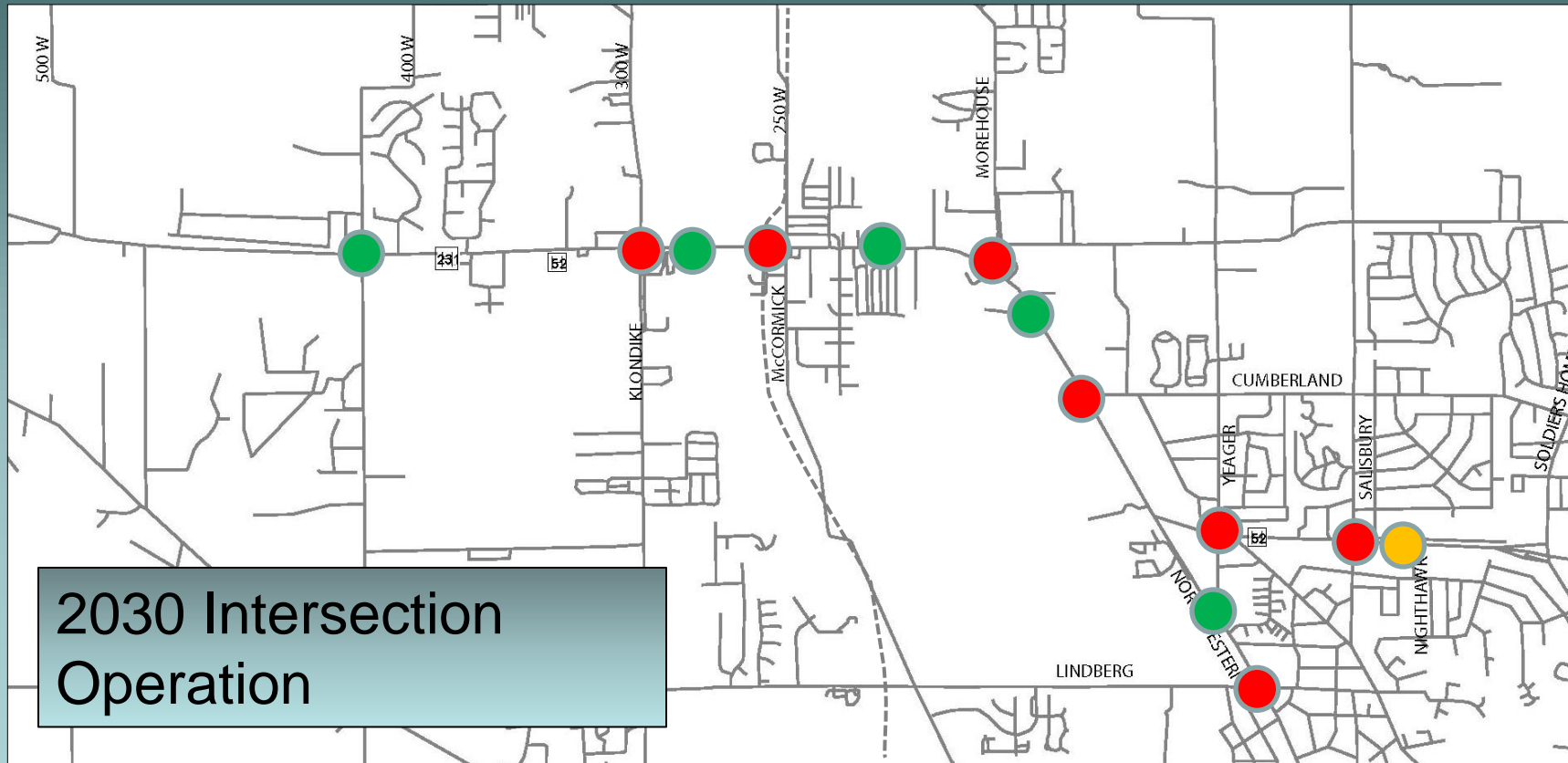


● = Good

● = Fair

● = Poor

Roadway Traffic Operation

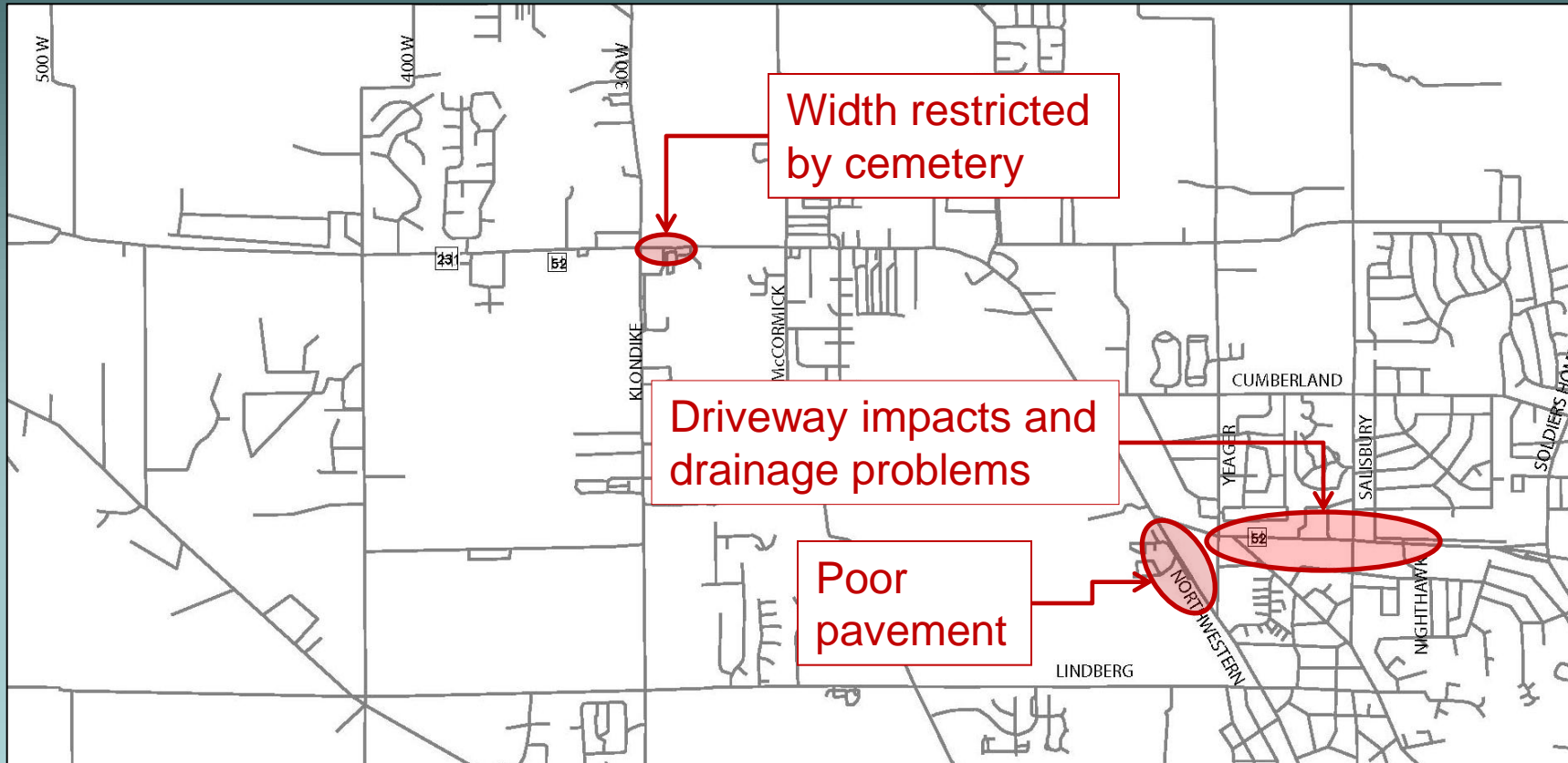


● = Good

● = Fair

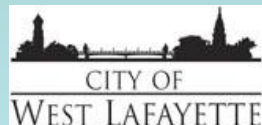
● = Poor

Geometric Deficiencies



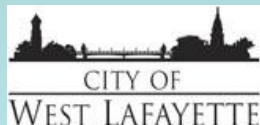
Bicycle and Pedestrian Accommodation

- US 52 west of Yeager Road
 - No sidewalks
 - Traffic volume and speed discourages cyclists
 - Discontinuous paved shoulders
- US 52 east of Yeager Road
 - Discontinuous sidewalks
 - No provisions for bicycle travel or access
- Northwestern Avenue
 - Little usable sidewalk
 - High speeds, poor pavement, discontinuous shoulder



Transit Accommodation

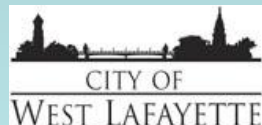
- US 52 east of Yeager
 - Good service on cross/parallel streets (Yeager, Salisbury, Happy Hollow, Cumberland, Navajo)
 - No service along US 52
 - Lack of supporting sidewalk infrastructure
- Northwestern and US 52 west of Yeager
 - Good service along corridor
 - Lack of supporting density and sidewalk infrastructure



Stakeholder/Public Input

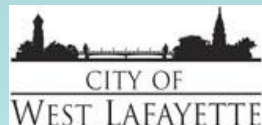
Problem Themes

- Speeding
- Bicycle and pedestrian accommodation
- Safety at stop-controlled intersections
- Driveway safety – Yeager to Salisbury
- US 52/Klondike intersection
- Stormwater drainage issues



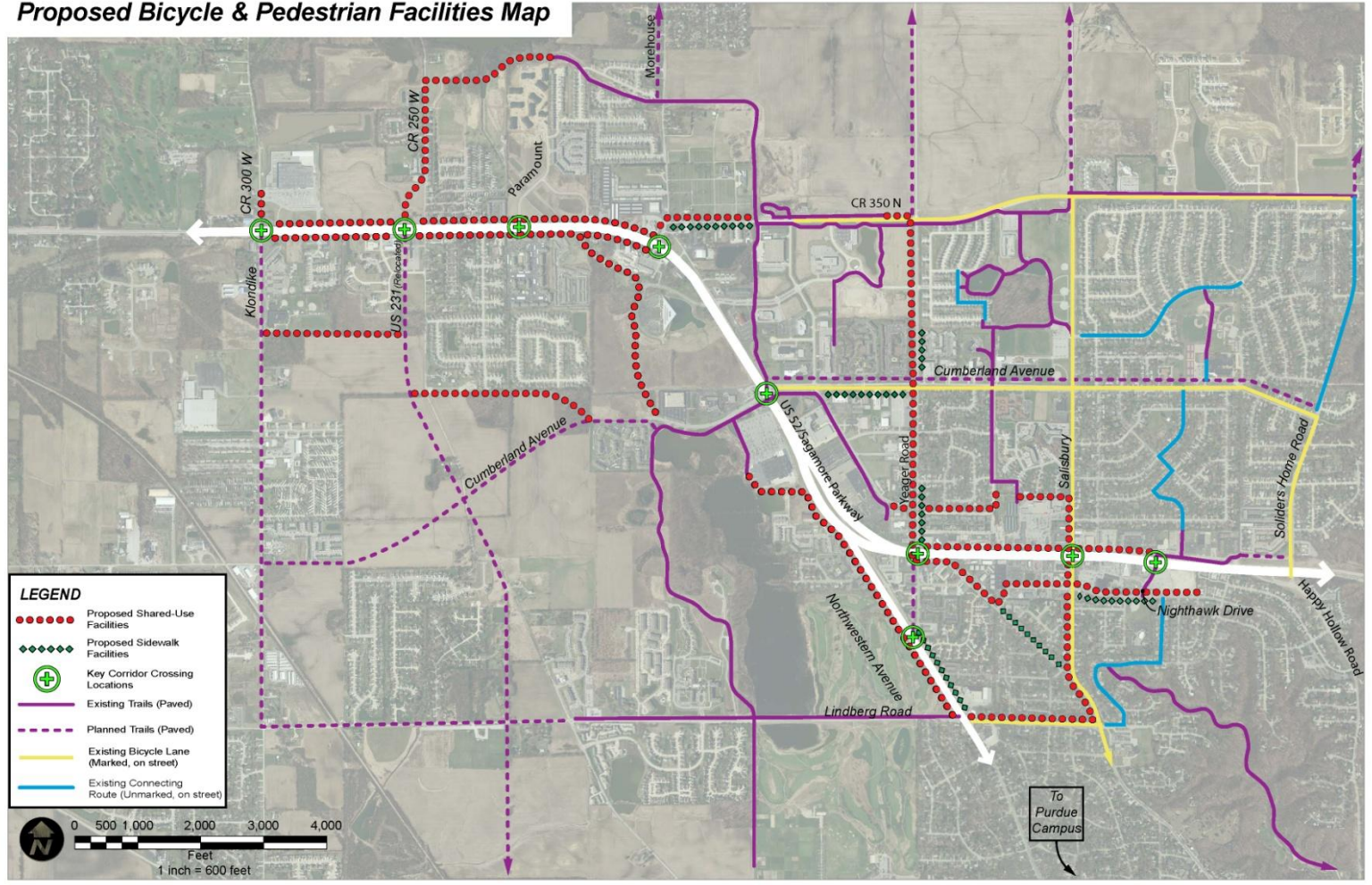
Improvement Options

- Add roadway or intersection capacity
- Improve intersection traffic control
- Manage access to adjacent property
 - Medians
 - Driveway consolidation
 - Parallel access roads
- Improve bicycle and pedestrian facilities
- Improve drainage
- Gateway enhancements
- Design measures for speed control



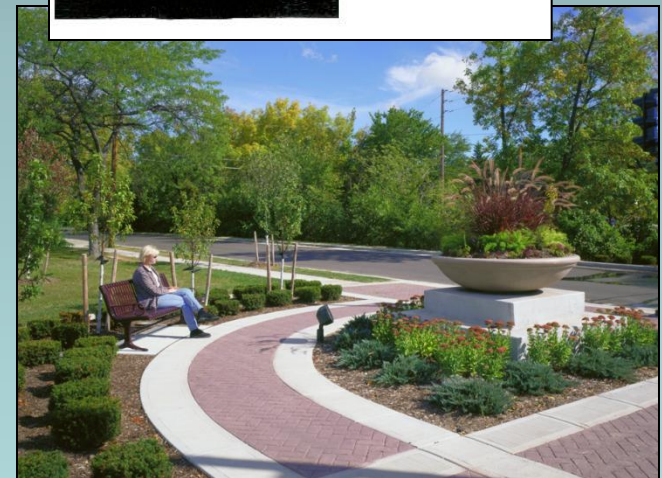
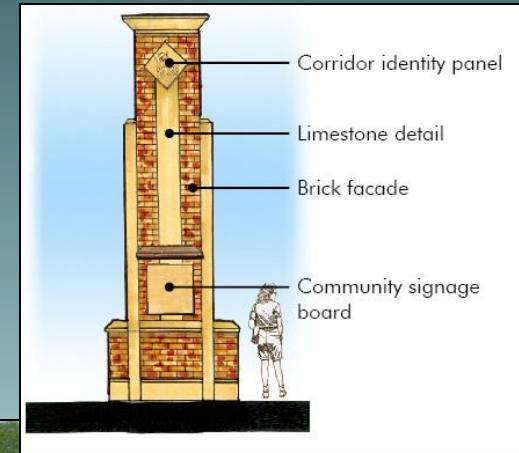
Bicycle / Pedestrian Improvements

Proposed Bicycle & Pedestrian Facilities Map



Gateway Enhancements

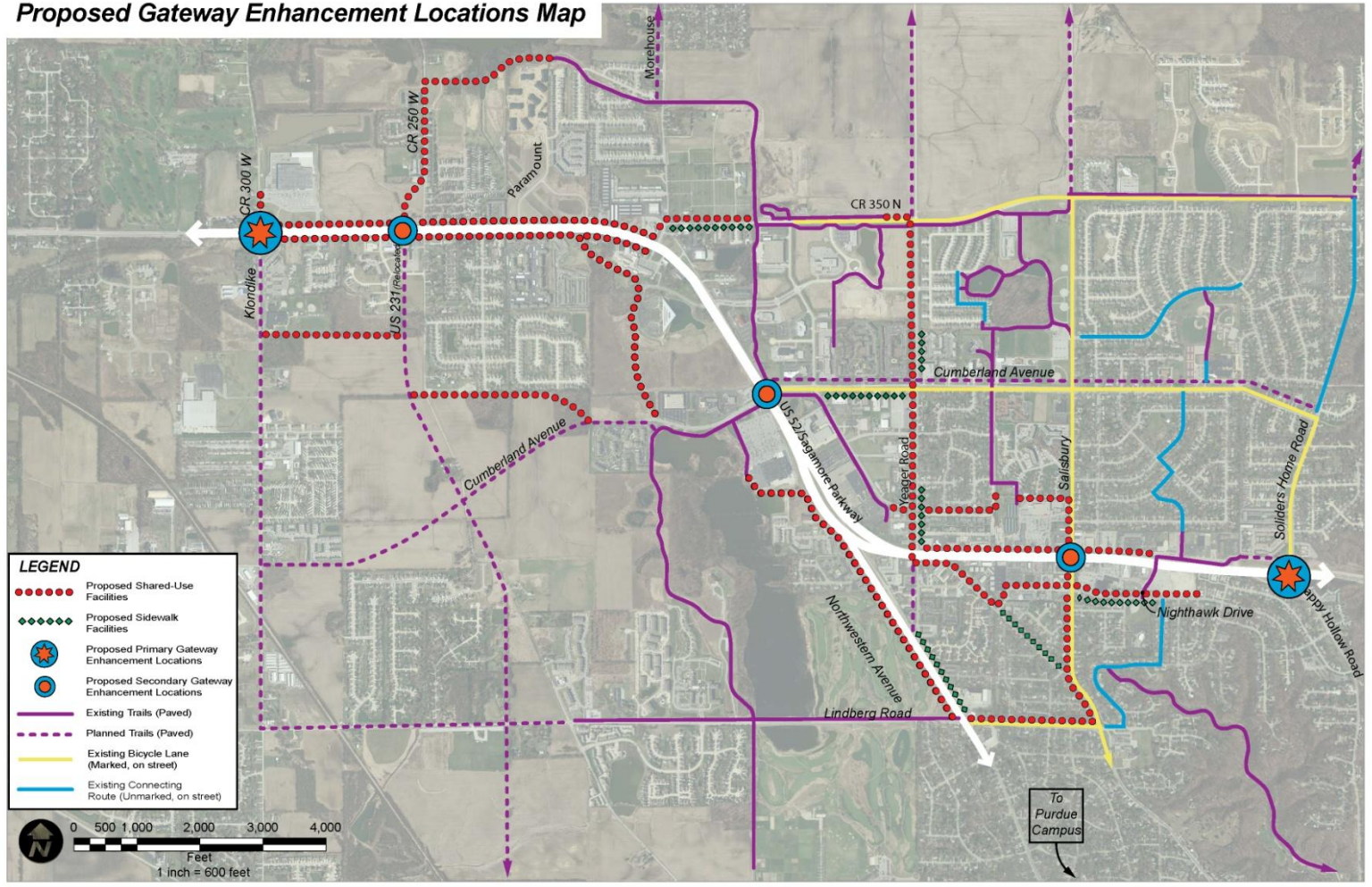
- Could incorporate:
 - Structural elements
 - Pedestrian enhancements and crossing treatments
 - Wayfinding signage
 - Stormwater management
 - Lighting
- Benefits
 - Calming effect on traffic
 - Pedestrian safety and wayfinding
 - Reinforce sense of community and corridor unity



Example gateway enhancements

Gateway Enhancements


Proposed Gateway Enhancement Locations Map



Driveway Access

US 52 Corridor Study: Tippecanoe County



 Areas of Driveway Consolidation

1 inch = 400 feet

**Potential
Driveway
Consolidation**

CR 250 W to Win Hentschel

Driveway Access

US 52 Corridor Study: Tippecanoe County



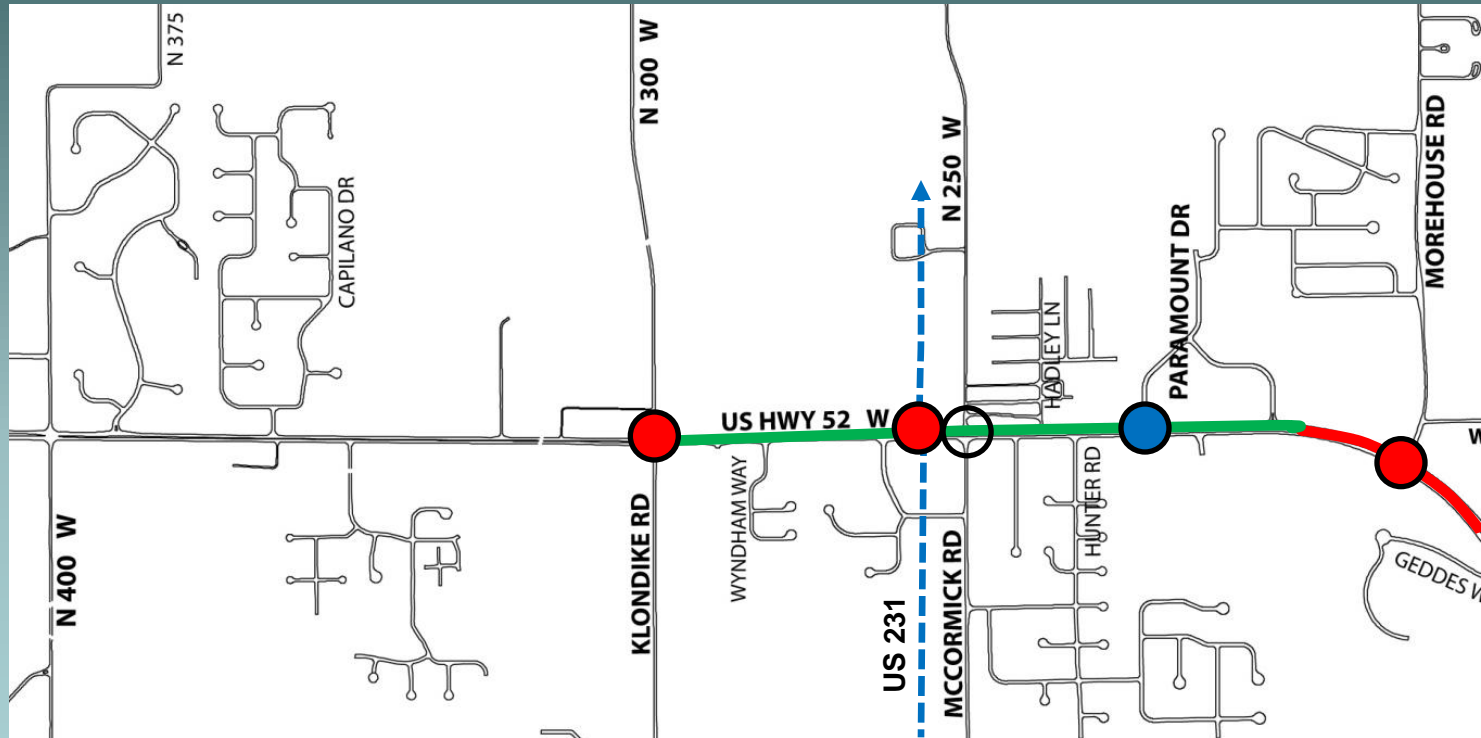
 Areas of Driveway Consolidation

1 inch = 400 feet

**Potential
Driveway
Consolidation**

Northwestern to Nighthawk

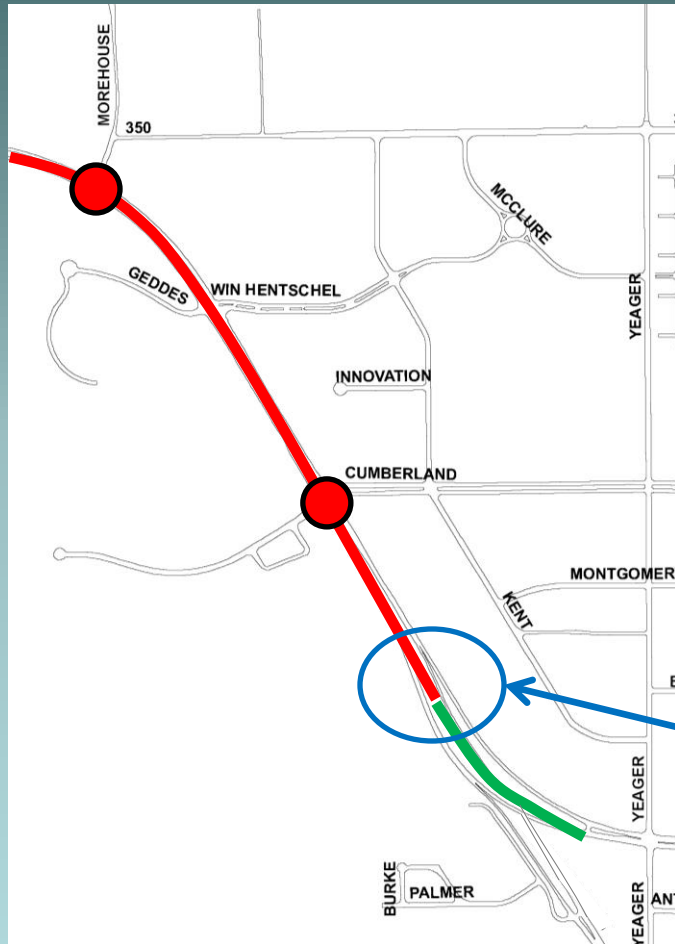
Roadway Capacity Changes – CR 500 W to Morehouse Rd



- 4-lane urban section
- 6-lane urban section

- Added lanes at intersection
- New traffic signal
- Close intersection

Roadway Capacity Changes – Morehouse Rd to Northwestern Ave



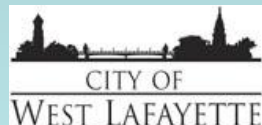
- 4-lane urban section
- 6-lane urban section
- Added lanes at intersection

- Move NB entrance ramp further upstream
- Potential future at-grade intersection

Alternate Capacity Improvements— Yeager Rd to Nighthawk Dr

4 Alternatives

1. Widen – 1 added lane in each direction
2. Implement “median u-turn” (“Michigan left”) design
3. Implement “quadrant roadway intersection” at Salisbury Street
4. Do Nothing



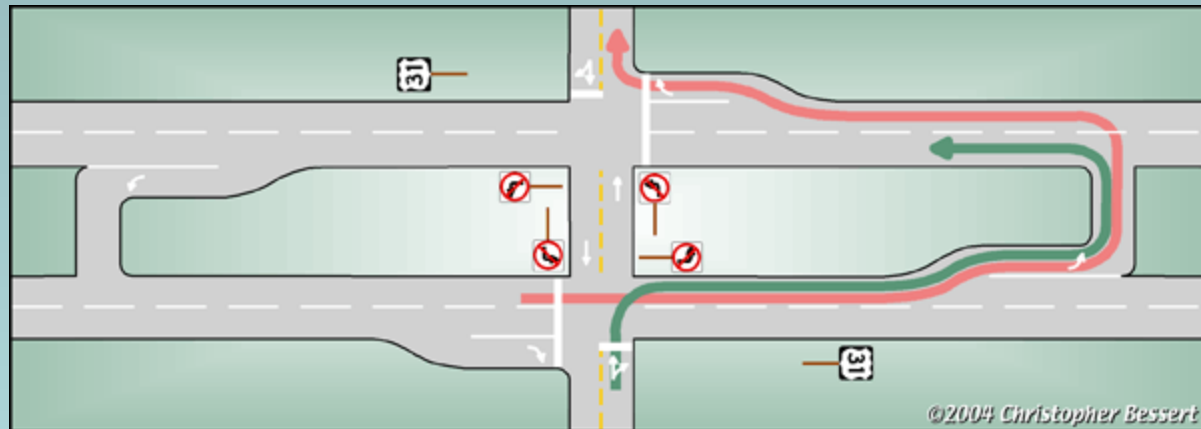
Widening Alternative – Yeager Rd to Nighthawk Dr

- + Easy for drivers to understand
- + Provides more capacity between intersections to help driveway movements
- Significant ROW impacts along entire segment
- Still some delay at Salisbury



Median U-Turn Alternative – Yeager Rd to Nighthawk Dr

- Left turns prohibited at Yeager, Salisbury and Nighthawk
- Left turns diverted to u-turn crossovers



Source: Michigan Dept. of Transportation

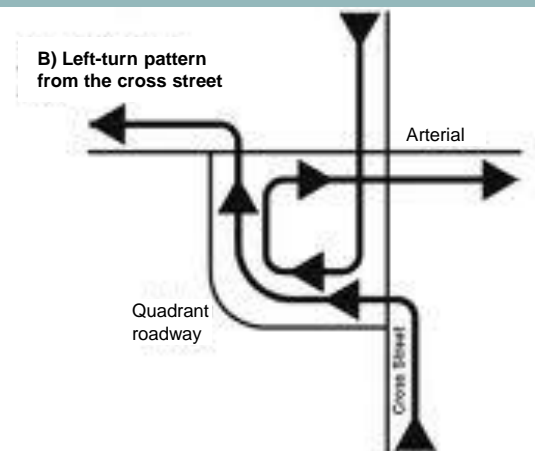
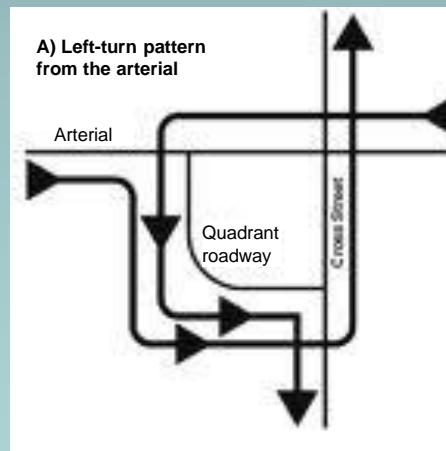
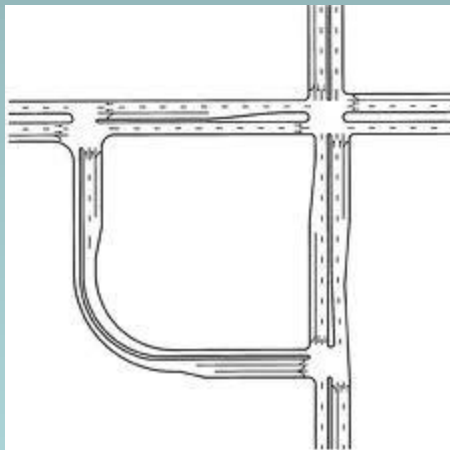
Median U-Turn Alternative – Yeager Rd to Nighthawk Dr

- + Better intersection operation than widening
- + Fewer impacted properties
- + Best alternative for pedestrians crossing US 52
- Could be confusing for unfamiliar drivers
- Left turns are indirect
- ROW impacts and paving at turn around locations



Quadrant Intersection Alternative— Yeager Rd to Nighthawk Dr

- Left turns prohibited at Salisbury
- Left turns diverted to adjacent intersections



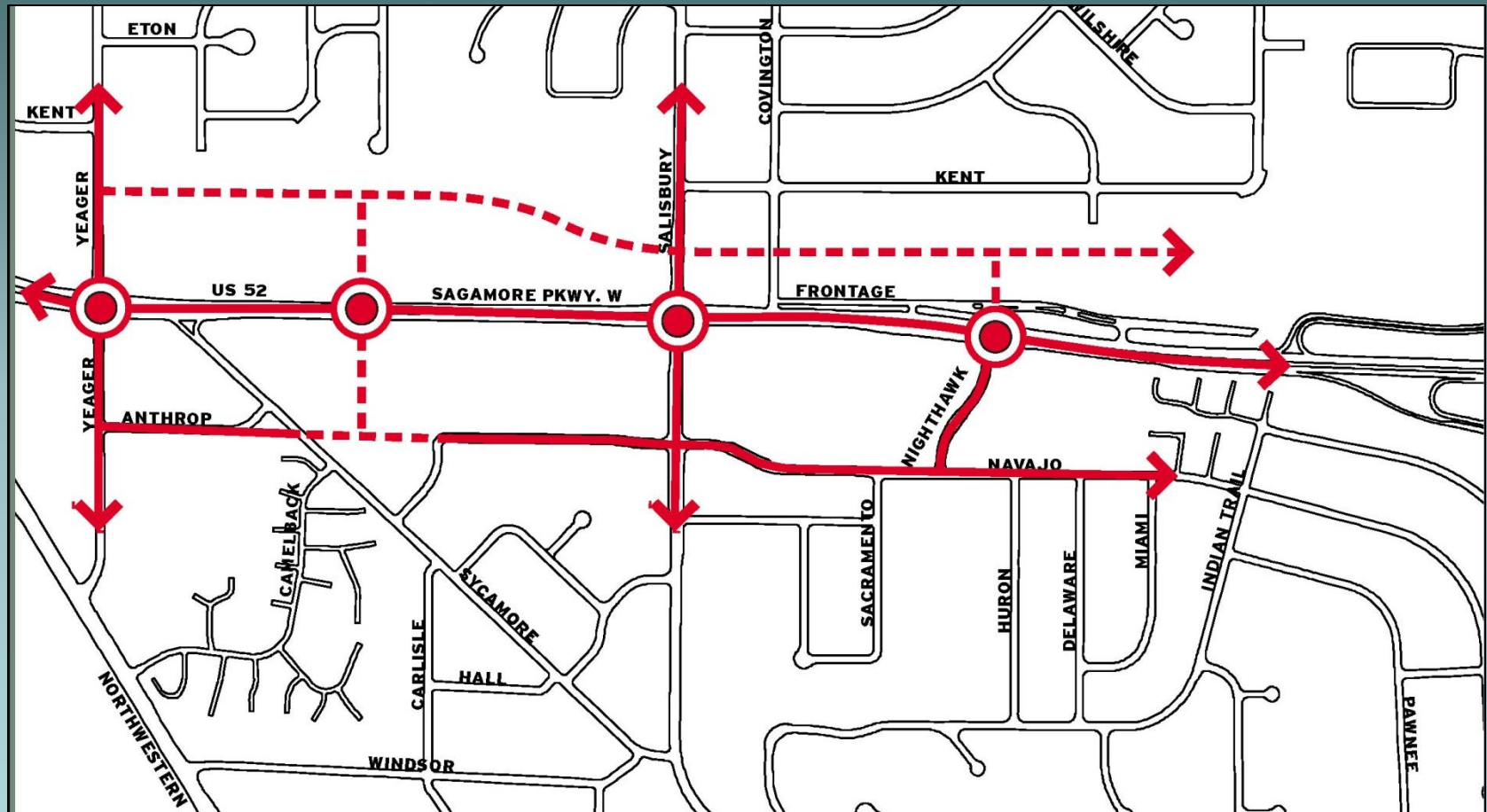
Source: Federal Highway Administration

Quadrant Intersection Alternative— Yeager Rd to Nighthawk Dr

- + Better operation at Salisbury than widening
- + Fewer impacted properties
- Still requires widening at Yeager and Nighthawk
- Could be confusing for unfamiliar drivers
- Left turns are indirect at Salisbury
- Significant ROW impacts at Salisbury



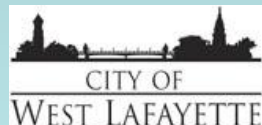
Alternate Commercial Access – Yeager Rd to Nighthawk Dr (long term)



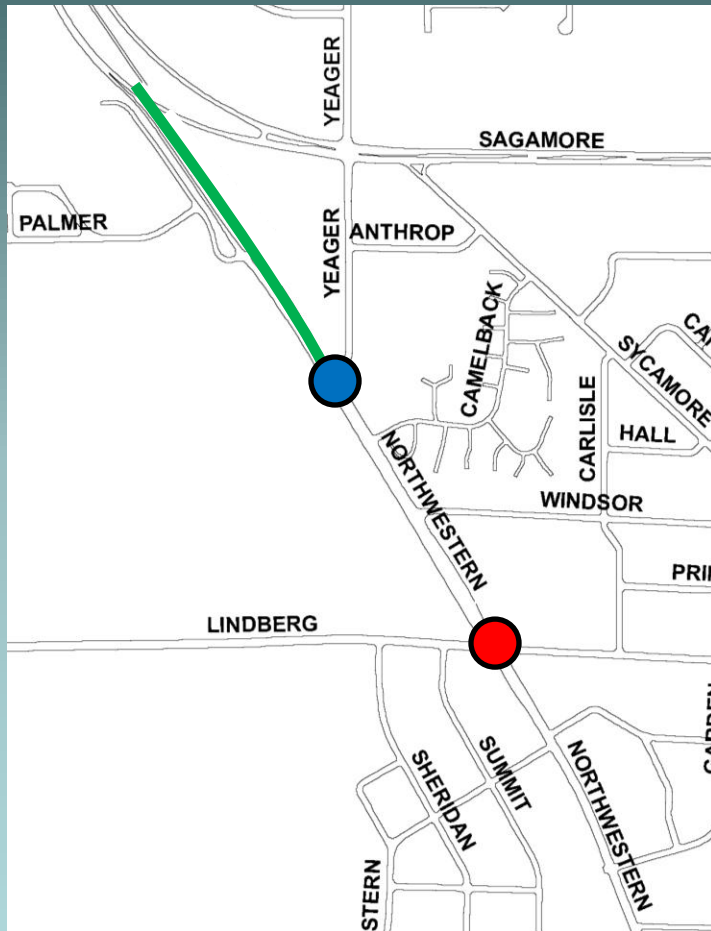
Alternate Commercial Access – Yeager Rd to Nighthawk Dr (long term)

Advantages and Disadvantages

- + Remove interference from driveway traffic
 - + Safer for vehicles on US 52
 - + Safer for pedestrians
 - + Preserve capacity on US 52
- + Could contribute to more accessible, pedestrian friendly retail areas
- Property impacts due to access road construction
- Increased traffic on cross streets (Yeager, Salisbury and Nighthawk)



Roadway Changes – Northwestern Avenue



- Added lanes at intersection
- New roundabout (programmed project)
- Pavement improvement

Improvement Effectiveness Example

Potential Improvements US 52 - CR 500 W to Morehouse Road	Performance					
	Crash Reduction	Vehicle Operation	Speed Reduction	Bicycle Access	Pedestrian Access	Transit Operation Livability
1. Urban section (curb, gutter, median)	■	□	■	□	■	□
2. Add turn lanes - CR 300 W intersection	■	■	□	□	■	■
3. Add turn lanes - US 231 intersection	■	■	□	□	■	■
4. Install traffic signal - Paramount Drive intersection	■	■	■	■	■	■
5. Consolidate driveways	■	■	□	■	■	■
6. Improve bicycle/pedestrian facilities	■	□	□	■	■	■
7. Construct gateway enhancements at CR 300 W, US 231	■	□	■	□	■	■
8. Construct parallel roads	■	■	□	□	□	□

■ = Improves

□ = Minimal Effect

■ = Worsens

Wrap Up

- Questions?
- View maps
- Feedback Forms

Contact:

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Presentation and report will be posted

